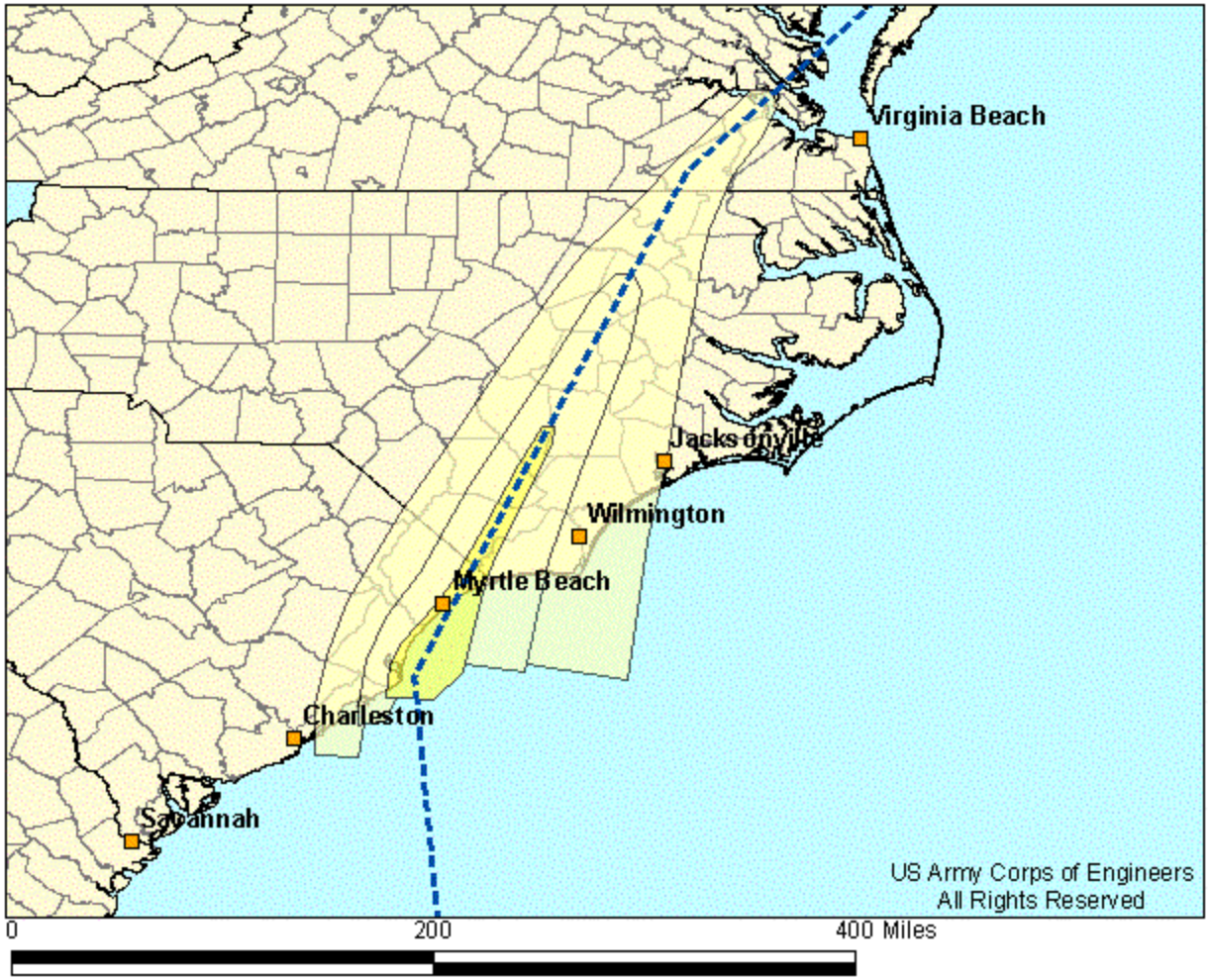
US Army Corps of Engineers

Hurricane Hanna Projected Damage Areas

Landfall Expected In About 19 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC (0500 EDT 09/05/2008) forecast.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

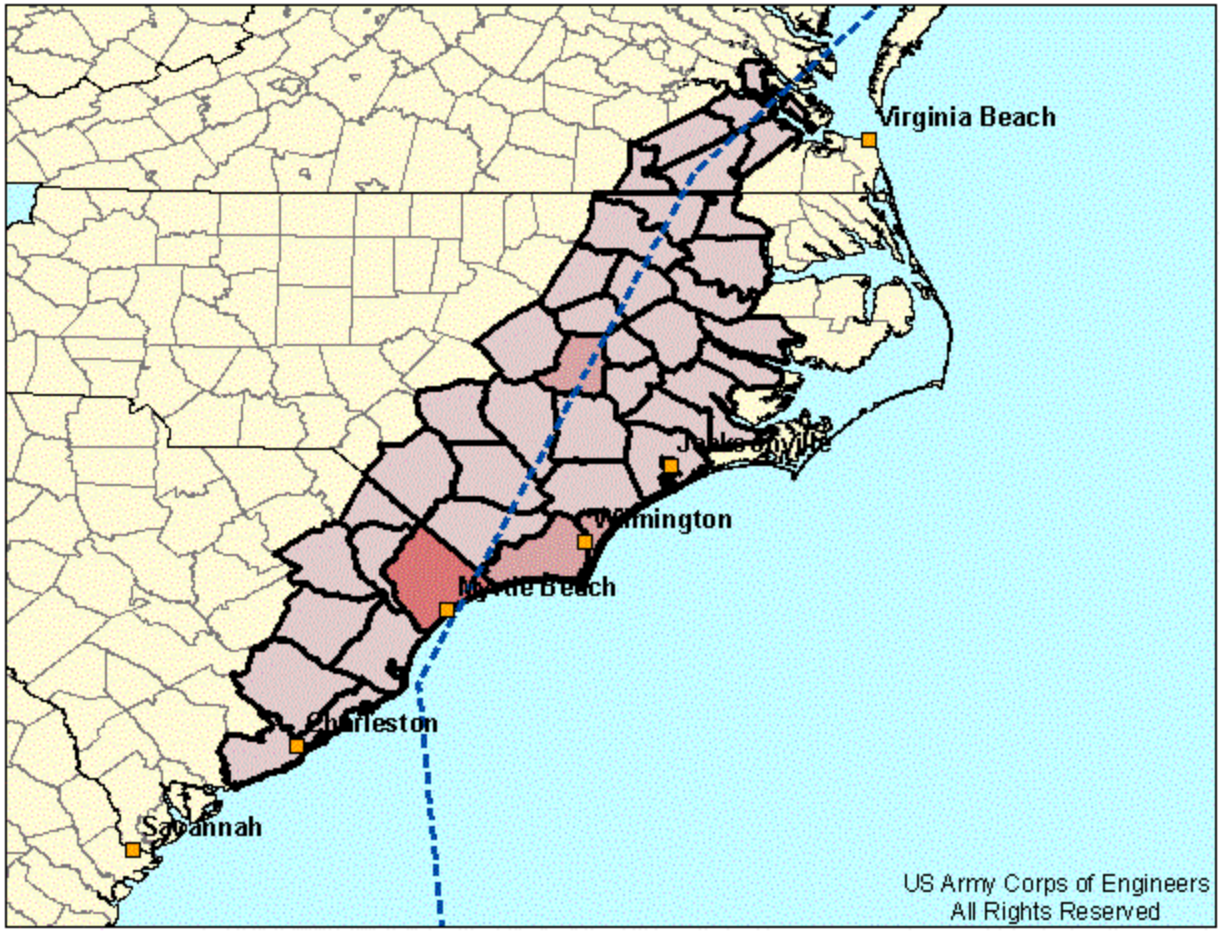
Hurricane Hanna Projected Damage Areas	
Generated By: Siemsen, LRL 0715 EDT 09/05/2008	
Sources: HURREVAC LRL-DEBRIS	Page 1 of 11

US Army Corps of Engineers

Hurricane Hanna Debris Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

North Carolina - 1,128,000 Yards
South Carolina - 568,000 Yards
Virginia - 36,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC (0500 EDT 09/05/2008) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hanna Debris Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hanna Debris Model

Landfall Expected In About 19 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
North Carolina		Beaufort	< 1,000
		Bertie	3,000
		Bladen	39,000
		Brunswick	127,000
		Columbus	74,000
		Craven	4,000
		Cumberland	5,000
		Duplin	60,000
		Edgecombe	43,000
		Greene	17,000
		Halifax	13,000
		Hertford	6,000
		Johnston	40,000
		Jones	5,000
		Lenoir	39,000
		Martin	5,000
		Nash	43,000
		New Hanover	137,000
		Northampton	11,000
		Onslow	61,000
		Pender	48,000
		Pitt	87,000
		Robeson	13,000
		Sampson	65,000
		Wayne	118,000
		Wilson	65,000
North Carolina	1,128,000		
South Carolina		Berkeley	2,000
		Charleston	11,000
		Dillon	< 1,000

State	Yards per State	County	Yards per County
South Carolina		Florence	3,000
(continued)		Georgetown	88,000
		Horry	448,000
		Marion	8,000
		Williamsburg	8,000
South Carolina	568,000		
Virginia		Franklin City	6,000
		Greensville	< 1,000
		Isle Of Wight	6,000
		James City	7,000
		Newport News city	< 1,000
		Southampton	11,000
		Surry	4,000
		Sussex	2,000
Virginia	36,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Hanna Debris Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

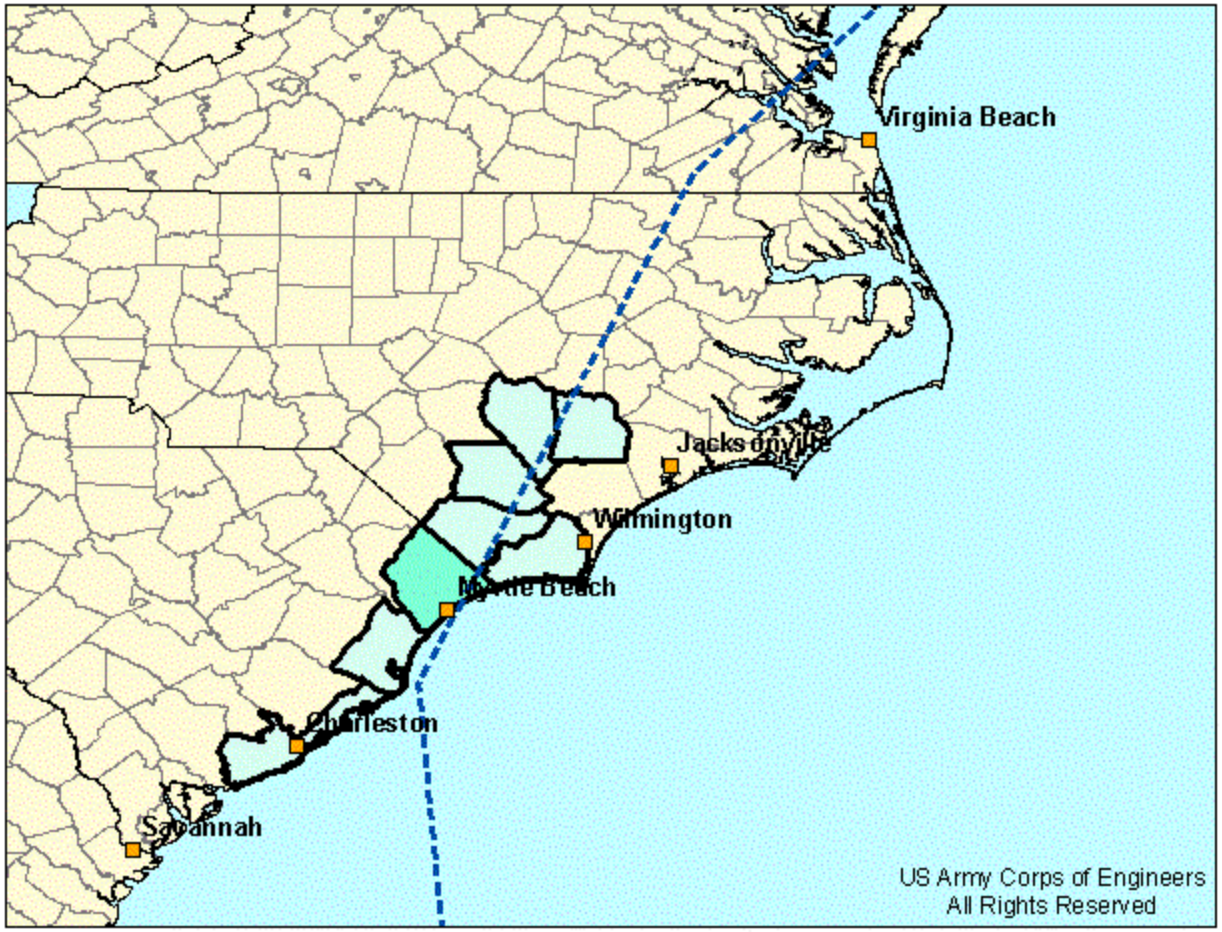
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hanna Commodities Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three
South Carolina – 2/4/7 Truckloads
North Carolina – 1/2/5 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC ***(0500 EDT 09/05/2008)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hanna Commodities Model	
Generated By: Siemsen, LRL 0715 EDT 09/05/2008	
Sources: HURREVAC LRL-DEBRIS	Page 4 of 11

US Army Corps of Engineers

Hurricane Hanna Commodities Model

Landfall Expected In About 19 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
North Carolina		Bladen	1
		Brunswick	1
		Columbus	1
		Duplin	1
		Sampson	1
North Carolina	5		
South Carolina		Charleston	1
		Georgetown	1
		Horry	5
South Carolina	7		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Hanna Commodities Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

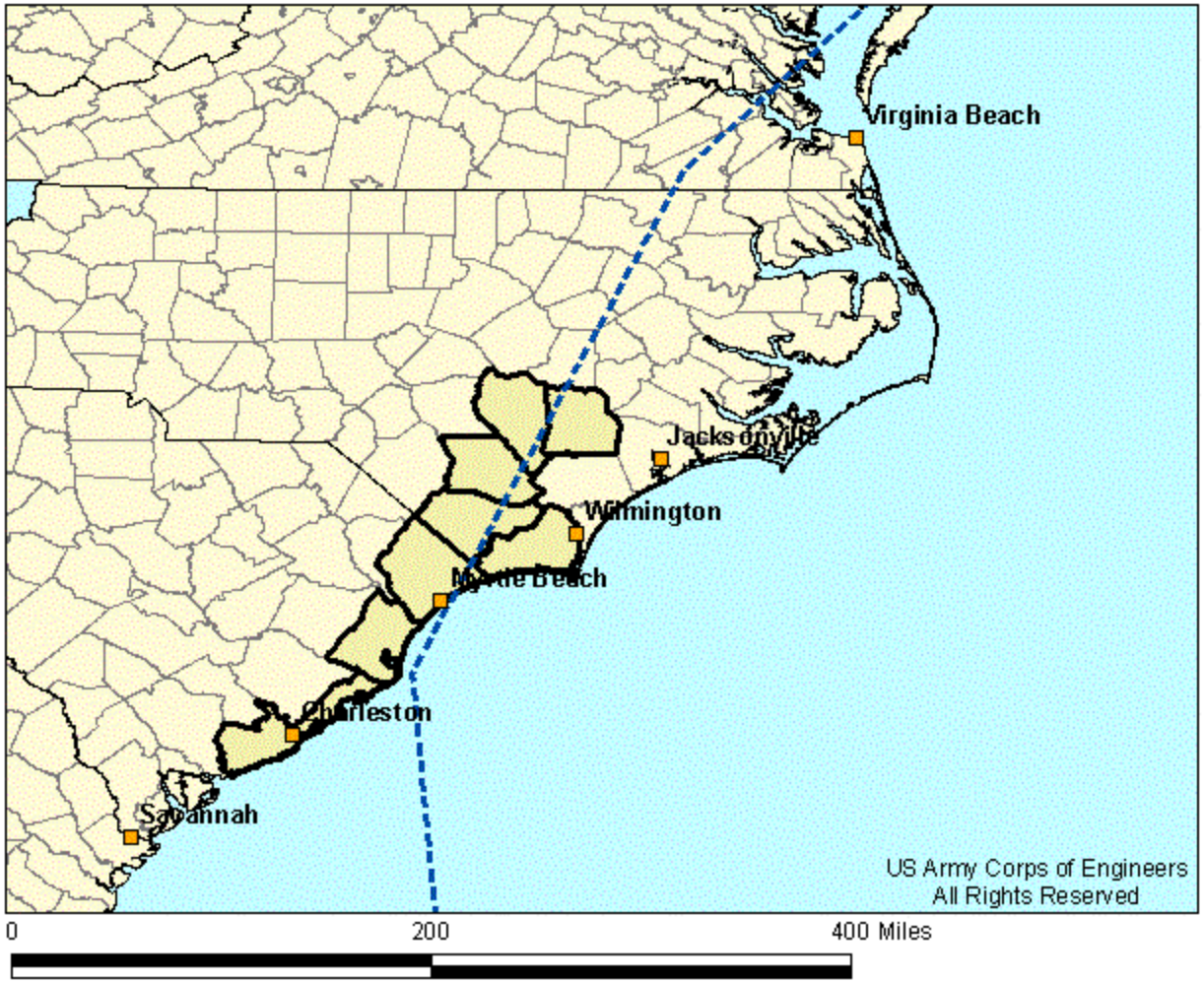
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hanna Temporary Roofing Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

South Carolina - 1,100
North Carolina – 100-200

Model results per County on following page

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC (0500 EDT 09/05/2008) forecast. Temporary roofing is based on 2% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hanna Roofing Model	
Generated By: Siemsen, LRL 0715 EDT 09/05/2008	
Sources: HURREVAC LRL-DEBRIS	Page 6 of 11

US Army Corps of Engineers

Hurricane Hanna Temporary Roofing Model

Landfall Expected In About 19 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
North Carolina		Bladen	< 100
		Brunswick	< 100
		Columbus	< 100
		Duplin	< 100
		Sampson	< 100
North Carolina			
South Carolina		Charleston	< 100
		Georgetown	200
		Horry	900
South Carolina	1,100		

Temporary roofing is based on 2% in CAT 1.

Details about this model may be obtained at http://www.enqlink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Hanna Roofing Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

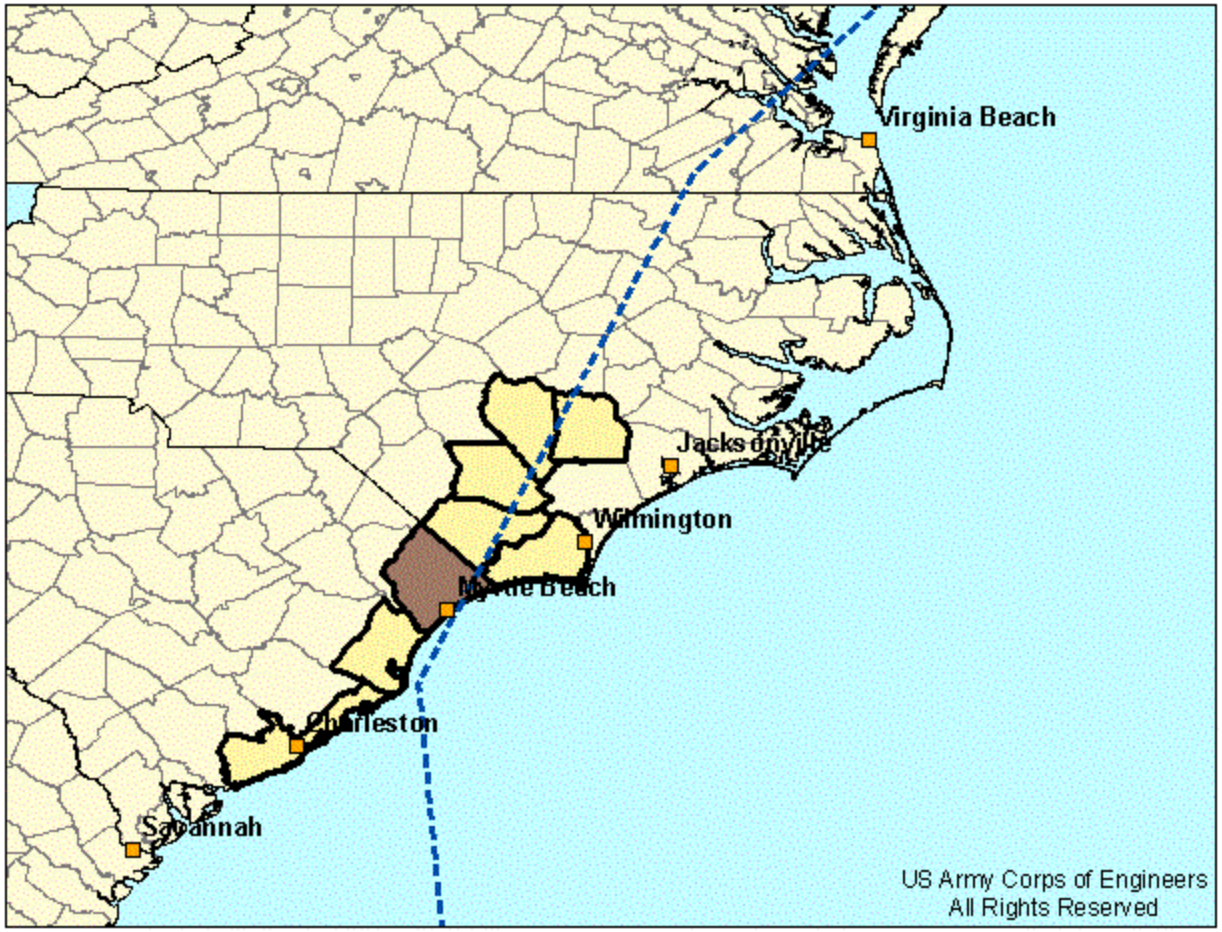
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hanna Population Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!



Post Landfall Population Model Results

South Carolina - 126,000
North Carolina - 26,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC (0500 EDT 09/05/2008) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hanna Population Model	
Generated By: Siemsen, LRL 0715 EDT 09/05/2008	
Sources: HURREVAC LRL-DEBRIS	Page 8 of 11

US Army Corps of Engineers

Hurricane Hanna Population Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
North Carolina		Bladen	4,000
		Brunswick	7,000
		Columbus	8,000
		Duplin	2,000
		Sampson	5,000
North Carolina	26,000		
South Carolina		Charleston	< 1,000
		Georgetown	15,000
		Horry	111,000
South Carolina	126,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Hanna Population Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

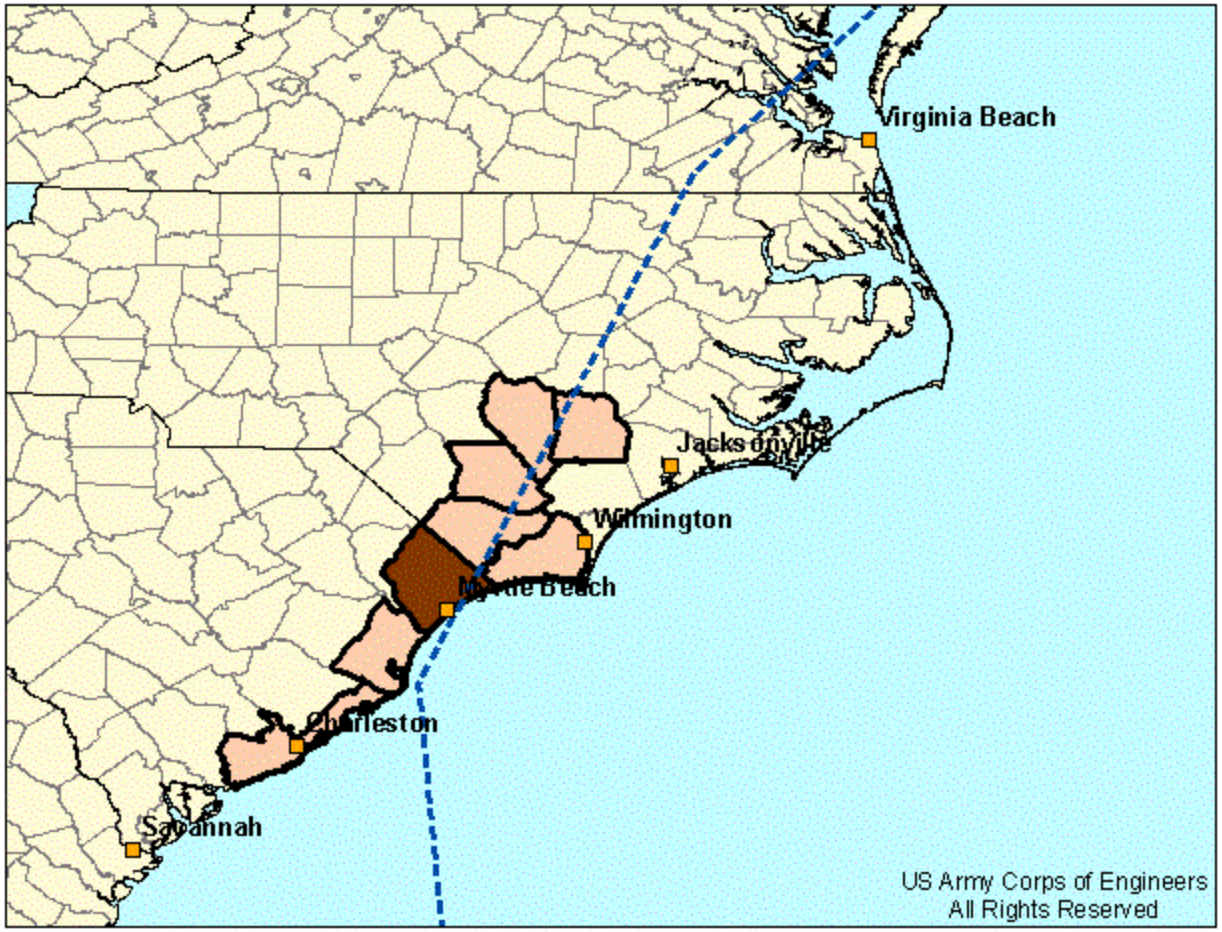
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hanna Households Model

Landfall Expected In About **19** Hours

For Planning Purposes Only!



Post Landfall Households Model Results

South Carolina - 58,000
North Carolina - 10,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Myrtle Beach, SC.

Forecast Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall near Myrtle Beach, SC. These projections are based on information from the NHC (0500 EDT 09/05/2008) forecast. The numbers of households included in this model output are those that would be included within estimated hurrican e force winds (Census 2000 values adjusted to July 2007 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hanna Households Model	
Generated By: Siemsen, LRL 0715 EDT 09/05/2008	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 11

US Army Corps of Engineers

Hurricane Hanna Households Model

Landfall Expected In About 19 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
North Carolina		Bladen	2,000
		Brunswick	3,000
		Columbus	3,000
		Duplin	< 1,000
		Sampson	2,000
North Carolina	10,000		
South Carolina		Charleston	< 1,000
		Georgetown	7,000
		Horry	51,000
South Carolina	58,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2007 values.

Details about this model may be obtained at http://www.enqlink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Hanna Households Model

Generated By:
Siemsen, LRL 0715 EDT 09/05/2008

Sources:
HURREVAC
LRL-DEBRIS